

## ABSTRACT

One embodiment of a switching matrix includes a field programmable gate array having an input memory and an output memory. The field programmable gate array stores in the input memory an input frame having a plurality of input channels. The field programmable gate array stores in the output memory an output frame having a plurality of output channels is stored. The field programmable gate array further includes a map memory in which the field programmable gate array stores at least one mapping that specifies one of the plurality of input channels that is mapped to one of the output channels.